

**AMENDMENTS TO THE CLAIMS**

**1.** (Currently Amended) A fuel cell, comprising a tubular polymer electrolyte membrane, with a fuel electrode on ~~one of an inner and outer sides~~ side of the membrane, and with an air electrode on ~~the other~~ an outer side of the membrane,

wherein said at least one of the fuel electrode and said the air electrode ~~each are~~ is composed of a carbon particle material on the surface of which catalyst fine-particulates are dispersed and loaded, and

wherein the polymer electrolyte membrane prevents fuel ~~or air inside~~ on the inner side of the membrane from leaking, and

wherein methanol is used as the fuel, and

wherein the fuel cell is flexible to be accommodated to an apparatus and operates at a temperature to cause output of electric power at 100°C or less.

**2.** (Canceled).

**3.** (Original) The fuel cell according to claim 1, wherein said tubular polymer electrolyte membrane has a catalyst layer deposited or coated on a surface thereof.

**4.** (Original) The fuel cell according to claim 1, wherein fuel is brought into contact with said fuel electrode on the surface of said tubular polymer electrolyte membrane, and an oxidizer is brought into contact with said air electrode on the surface of said tubular polymer electrolyte membrane.

**5.** (Original) The fuel cell according to claim 1, wherein said fuel cell is utilized as a power source of a portable device.

**6.** (Cancelled)

**7.** (Cancelled)

**8.** (Original) The fuel cell according to claim 1, which is a small fuel cell.

**9.** (Original) The fuel cell according to claim 1, wherein the tubular polymer electrolyte membrane has an inner diameter of 0.2 to 10 mm, an outer diameter of 0.5 to 12 mm, and a length of 20 to 1,000 mm.

**10.** (Cancelled)

**11.** (Currently Amended) The fuel cell according to claim 1, wherein the tubular polymer electrolyte membrane is a membrane selected from the group

consisting of a perfluorosulfonic acid type acid membrane, a perfluorocarbonic acid membrane, a poly-styrene-vinylbenzene membrane and a quaternary ammonium anion-exchange membrane.

**12. (Cancelled)**

**13. (Currently Amended)** A fuel cell, comprising a tubular polymer electrolyte membrane, with a fuel electrode on one of an inner and outer sides side of the membrane, and with an air electrode on the other an outer side of the membrane, wherein said tubular polymer electrolyte membrane has a catalyst layer deposited or coated on a surface thereof, and the polymer electrolyte membrane prevents fuel on the inner side of the membrane from leaking,

wherein methanol is used as the fuel, and

wherein the fuel cell is flexible to be accommodated to an apparatus and operates at a temperature to cause output of electric power at 100°C or less.

**14. (Previously Presented)** The fuel cell according to claim 13, wherein fuel is brought into contact with said fuel electrode on the surface of said tubular polymer electrolyte membrane, and an oxidizer is brought into contact with said air electrode on the surface of said tubular polymer electrolyte membrane.

**15.** (Previously Presented) The fuel cell according to claim 13, wherein said fuel cell is utilized as a power source of a portable device.

**16.** (Cancelled)

**17.** (Cancelled)

**18.** (Previously Presented) The fuel cell according to claim 13, which is a small fuel cell.

**19.** (Previously Presented) The fuel cell according to claim 13, wherein the tubular polymer electrolyte membrane has an inner diameter of 0.2 to 10 mm, an outer diameter of 0.5 to 12 mm, and a length of 20 to 1,000 mm.

**20.** (Cancelled)

**21.** (Currently Amended) The fuel cell according to claim 13, wherein the tubular polymer electrolyte membrane is a membrane selected from the group consisting of a perfluorosulfonic acid-type acid membrane, a perfluorocarbonic acid membrane, a poly-styrene-vinylbenzene membrane and a quaternary ammonium anion-exchange membrane.